

What is claimed is:

1. A method for persisting and recovering security keys in order to authorize a daemon or a command-line interface ("CLI"), comprising:
 - reading, with root as an effective user id, one or more security keys into a cache, wherein the root enables the reading of files including the one or more security keys;
 - attempting to retrieve a private key from the cache using a real user id, wherein the cached certain security keys may include the private key and the private key may be used to digitally sign a message; and
 - determining if the private key was retrieved from the cache, wherein a failure to retrieve the private key from the cache indicates that authorization failed.
2. The method of claim 1, further comprising:
 - setting, with the root as the effective user id, the certain security keys, wherein the setting step triggers performance of the reading step.
3. The method of claim 2, wherein the setting step comprises calling a setKeys method, wherein the setKeys method includes the reading step.
4. The method of claim 3, wherein a failure to retrieve the private key from the cache is caused by an error in the setKeys method.
5. The method of claim 1, further comprising:
 - entering the CLI, wherein the CLI is entered by a non-root user on a managed node and the private key is a security key of the managed node.
6. The method of claim 5, wherein the managed node has a public key, the method further comprising:
 - if the private key was retrieved from the cache, sending a message and a message copy, wherein the message copy is digitally signed with the private key from the managed node;
 - digitally signing the message with the managed node's public key;
 - comparing the message signed with the public key to the message copy signed with the private key; and

1 determining if the message is authorized based on the comparison of the
2 message signed with the public key to the message copy signed with the private
3 key.

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5 7. The method of claim 6, wherein the message comprises an executable, the
6 method further comprising:

7 if the message is authorized, executing the executable.

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9 8. The method of claim 1, further comprising:
10 running a daemon process, wherein the daemon is run on a managed node
11 and the private key is a security key of the managed node.

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13 9. The method of claim 8, wherein the managed node has a public key, the
14 method further comprising:

15 if the private key was retrieved from the cache, sending a message and a
16 message copy, wherein the message copy is digitally signed with the private key
17 from the managed node;

18 digitally signing the message with the managed node's public key;

19 comparing the message signed with the public key to the message copy
20 signed with the private key; and

21 determining if the message is authorized based on the comparison of the
22 message signed with the public key to the message copy signed with the private
23 key.

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25 10. The method of claim 1, wherein the reading step is performed by an
26 authentication class.

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28 11. The method of claim 10, wherein the cache is a private variable in the
29 authentication class.

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31 12. The method of claim 1, further comprising:
32 generating a security key pair, wherein the security key pair comprises the
33 private key and a corresponding public key;
34 serializing the security key pair as a key file; and

1 storing the key file, wherein the reading step comprises de-serializing the
2 key file and reading the private key into the cache.

3
4 13. A computer readable medium containing instructions for controlling a
5 computer system to persist and recover security keys in order to authorize a daemon
6 or a CLI, by:

7 reading, with root as an effective user id, one or more security keys into a
8 cache, wherein the root enables the reading of files including the security keys;
9 attempting to retrieve a private key from the cache using a real user id,
10 wherein the cached one or more security keys may include the private key and the
11 private key may be used to digitally sign a message; and

12 determining if the private key was retrieved from the cache, wherein a
13 failure to retrieve the private key from the cache indicates that authorization failed.

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15 14. The computer readable medium of claim 13, further containing instructions
16 for controlling the computer system by:

17 setting, with the root as an effective user id, the security keys, wherein the
18 setting step triggers the reading step.

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20 15. The computer readable medium of claim 14, wherein the setting the security
21 keys comprises calling a setKeys method, wherein the setKeys method that includes
22 the reading step.

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24 16. The computer readable medium of claim 13, wherein the computer system
25 comprises a managed node and the managed node has a public key, the computer
26 readable medium further containing instructions for controlling the computer
27 system by:

28 if the private key was retrieved from the cache, sending a message and a
29 message copy, wherein the message copy is digitally signed with the private key
30 from the managed node;

31 digitally signing the message with the managed node's public key;
32 comparing the message signed with the public key to the message copy
33 signed with the private key; and

1 determining if the message is authorized based on the comparison of the
2 message signed with the public key to the message copy signed with the private
3 key.

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5 17. A method for persisting and recovering security keys in order to authorize a
6 daemon or a CLI, comprising:

7 initializing an authentication class, wherein the authentication class
8 comprises a setKeys method that includes a reading step;
9 calling, with root as an effective user id, the setKeys method of the
10 authentication class, wherein the root enables the reading of files including security
11 keys;

12 reading necessary security keys into a cache with the root; and
13 retrieving the necessary security keys from the cache using a real user id.

14
15 18. The method of claim 17, wherein the cache is a private variable of the
16 authentication class.

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18 19. The method of claim 17, wherein the necessary security keys are a private
19 key of a managed node on which the authentication class is running and a public
20 key of a central management server to which the managed node is operatively
21 connected.

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23 20. The method of claim 17, wherein the authentication class is a Java class
24 running in a Java Virtual Machine, the method further comprising:
25 initializing the Java Virtual Machine.

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